

- LINNAEUS, C. 1753. *Species plantarum* . . . , 1. [xii] + 560 pp. Stockholm.
- PAPENFUSS, G. F. 1942. Notes on algal nomenclature. I. *Pollexfenia*, *Jeanerettia* and *Mesotrema*. *Proc. Nat. Acad. Sci.* 28: 446-451.
- . 1944. Notes on algal nomenclature. III. Miscellaneous species of Chlorophyceae, Phaeophyceae and Rhodophyceae. *Farlowia* 1(3): 337-346.
- . 1947. Generic names of algae proposed for conservation. I. *Madroño* 9(1): 8-17.
- RAFINESQUE, C. S. 1836. [1838]. *New flora and botany of North America* . . . , part 4. 112 pp. Philadelphia.
- SCHMITZ, F. 1889. Systematische Übersicht der bisher bekannten Gattungen der Florideen. *Flora* 72: 435-456, pl. 21.
- SETCHELL, W. A. and N. L. GARDNER. 1903. Algae of northwestern America. *Univ. Calif. Publ. Bot.* 1: 165-419, pls. 17-27.
- SVEDELIUS, N. 1908. Über den Bau und die Entwicklung der Florideengattung *Martensia*. *K. Sv. Vetensk.-Akad. Handl.* 43(7). 2 + 101 pp., 62 figs., 4 pls.
- ZANARDINI, J. 1858. *Plantarum in mari rubro hucusque collectarum enumeratio*. *Mem. Inst. Veneto* 7: 209-309, pls. 3-14.

## A CHANGE IN STATUS OF A MALVASTRUM FROM BAJA CALIFORNIA, MEXICO

IRA L. WIGGINS

In September, 1929, the late John W. Gillespie and I collected an attractive species of *Malvastrum* a few miles north of Ensenada, Baja California, Mexico. It was strikingly different from any representative of the genus growing in San Diego County, California, less than one hundred miles to the north. When we returned to Stanford University a description was written, a plate made to illustrate the "new species" and then, fortunately, the description and drawing were laid aside until a thorough check of types in eastern herbaria could be made. The scope of the research problem begun in 1929 had to be changed, and the *Malvastrum*, growing outside the confines of the Sonoran Desert, was not compared with types until recently. Dr. Reed C. Rollins has kindly permitted me to borrow the type of Asa Gray's *Malvastrum marrubioides* var. *paniculatum*. The plant collected in 1929 belongs to the same entity, but for reasons that will be discussed below it seems advisable to elevate the "variety" to specific rank. Accordingly the following new combination is proposed.

*Malvastrum paniculatum* (Gray) comb. nov. *Malvastrum marrubioides* var. *paniculatum* Gray, *Proc. Am. Acad.* 22: 290. 1887.

An erect or ascending openly branched shrub 1-2.5 m. tall, with stoutish, densely stellate-tomentose branches, the tomentum pale tawny to brownish; petioles 4-10 (or rarely to -15) mm. long, densely tomentose and somewhat scurfy; leaf-blades ovate to pentagonal-ovate, obscurely to distinctly 3-lobed, 1.5-4 cm. broad, 2-5 cm. long, or those on vigorous young shoots 8-10 cm.

long, irregularly and rather coarsely dentate, prominently veined beneath, slightly rugose with impressed veins on the upper surface, densely stellate-tomentose with grayish to tawny hairs on both surfaces, the lateral lobes usually rounded, the terminal one acute to rounded, the teeth broadly deltoid and rounded or coarser and acute; inflorescence paniculate, rather open, often 3–5 dm. long; peduncles and pedicels slender, about 0.3–0.5 mm. in diameter, to 6 cm. long, at first densely stellate-tomentose, but eventually scurfy and subglabrate; bracts 1–3, filiform-subulate, 3–4 mm. long; calyx-cup broadly turbinate-campanulate, 3–4 mm. deep and about as wide at anthesis, densely tomentose; calyx-lobes broadly cordate-ovate, abruptly attenuate, 6–8 mm. wide, 6–15 mm. long, distinctly veined, stellate-tomentose without, silky-villous within; corollas pale pink to deep rose, the petals 10–15 mm. long, narrowly obovate and more or less emarginate or rounded at the apex, cuneately narrowed to the base, the claws hispidulous at the base; staminal column about two-thirds as long as the petals, nearly glabrous; fruit depressed-globose, 3–4 mm. high, 5–6 mm. broad, the carpels obovoid-reniform, rounded and densely stellate-tomentulose dorsally, dehiscing the full length; seeds 1.5–1.8 mm. long, dark brown, minutely and irregularly puberulent in broken patches, sparsely and minutely papillate between the puberulent patches.

Specimens examined. Baja California, Mexico: Ensenada de Todos Santos, July 14, 1885, *C. R. Orcutt* (type, Gray Herb.); on banks of small ravine, 6 miles north of Ensenada, *Wiggins* and *Gillespie 4018*; slopes of a small canyon 5 miles west of Ojos Negros, *Wiggins* and *Gillespie 4079*; arid ridge 20 miles east of Ensenada on road to Ojos Negros, *Wiggins 11,869*.

The type of *Malvastrum marrubioides* var. *paniculatum* is an ample specimen consisting of flowering and fruiting branches about 5 dm. long, twice folded to fit on the herbarium sheet. It had originally been labeled "*Malvastrum foliosum*, Watson" but in Gray's characteristic handwriting is the annotation, "*Malvastrum marrubioides* var. *paniculatum* n. var."

When Gray published var. *paniculatum* he did so in a footnote to a paper dealing with a number of genera being worked on in connection with the preparation of his "Synoptical Flora of North America." He furnished a very brief characterization that read "having copious and loosely paniculate flowers, some of them rather slender-pedicelled."

Gray's examination of Orcutt's specimen may have been hurried, or he may have remembered incompletely the characters of *M. marrubioides* Durand & Hilgard, for the plant from Ensenada bears only a superficial resemblance to *M. marrubioides*. The latter, the type of which I have examined critically, has ovate to suborbicular leaves with serrate-dentate margins, the teeth being sharply acute and often twice as long as broad; bractlets beneath

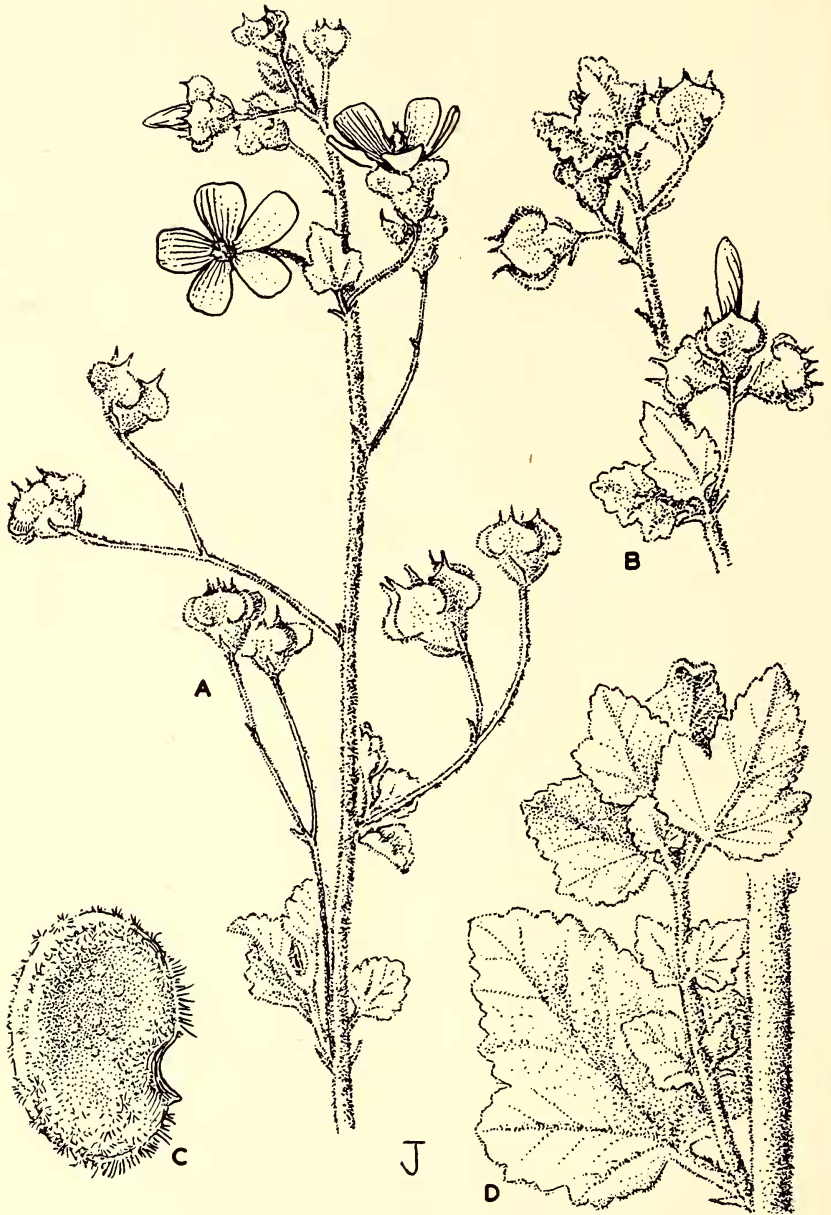


PLATE 12. *MALVASTRUM PANICULATUM*. FIGS. A-B, habit of flowering branches,  $\times 1$ . FIG. C, seed,  $\times 19$ . FIG. D, leaves,  $\times 1$ . (Drawing by Mrs. Carl Janish.)

the calyces 8–18 mm. long and often equalling the calyx-lobes; calyx-lobes merely lance-ovate and not cordate. The carpels of *M. marrubioides* are closely invested with erect hairs on the upper surface, while those on the carpels of *M. paniculatum* are appressed and nearly parallel to the surface. In view of these differences between the two plants it seems that specific rank should be accorded the population to which Gray gave only varietal recognition. None of the material from the United States has pedicels as slender as those possessed by *M. paniculatum* and none of the material of *M. marrubioides* from the interior foothills of southern California and from the eastern side of the San Joaquin Valley exhibits the abruptly flaring, cordate calyx-lobes developed in *M. paniculatum* and shown in the accompanying figure.

In the same paragraph in which Gray proposed var. *paniculatum* he relegated *M. foliosum* S. Wats. (Proc. Am. Acad. 20: 356. 1885) to the synonymy of *M. marrubioides* Dur. & Hilg. An examination of the type of *M. foliosum* S. Wats., shows that it has the leaf-pattern of *M. densiflorum* S. Wats., rather than that of *M. marrubioides*. *Malvastrum foliosum* may be a race of *M. densiflorum*, but certainly it is not conspecific with *M. marrubioides*. On the basis of the material examined to date, I prefer to recognize both *M. paniculatum* and *M. foliosum* as distinct species.

Dudley Herbarium, Stanford University  
Stanford, California

## A NEW SPECIES AND SUBGENUS OF ATRIPLEX FROM SOUTHWESTERN COLORADO

WILLIAM A. WEBER

The genus *Atriplex* in the Chenopodiaceae is characterized, in part, by the presence of a pair of bract-like organs which enclose more or less permanently a single carpellate flower. The carpellate flower, moreover, lacks a perianth except in a very few species. These species fall into two groups, (1) the Eurasian section *Hortenses* in which some of the carpellate flowers are ebracteolate and are provided with a regular 3–5-lobed herbaceous calyx, and (2) the North American section *Endolepis* in which the carpellate flowers are provided with a calyx of hyaline scales.

Hall and Clements (The phylogenetic method in taxonomy. The North American species of *Artemisia*, *Chrysothamnus*, and *Atriplex*. Carnegie Inst. of Wash. Publ. No. 326. 1923) divided the North American species of *Atriplex* into the two subgenera *Euatriples* and *Obione*, and postulated the characters which might be combined in a primitive stock from which the subgenera were derived. This primitive stock, according to Hall, would have an inferior radicle, and would have a perianth present both in staminate and pistillate flowers. The present paper records the dis-